

**ABSTRACT**  
**For**  
**MULTI-FREQUENCY TRANSMITTER USING PREDISTORTION**  
**AND A METHOD OF TRANSMITTING**

A multi frequency carrier transmitter comprises input means for receiving a plurality of different digital signals to be transmitted. The different signals are to be transmitted on different carrier frequencies. Amplifier means receive a composite signal comprising the different signals at the respective carrier frequencies and amplify the composite signal. Predistortion means predistort the plurality of digital signals prior to amplification of the composite signal by the amplification means. The predistortion provided by the predistortion means is subsequently altered in dependence on the difference between the input signals and the output at the amplifier means.